

AMENDMENTS TO THE CLAIMS

1-19 (Cancelled)

20. (Currently Amended) A motor drive control device that controls a motor having three or more phases, comprising:

a d-q voltage calculating unit that calculates a voltage v_d which is a d-axis component of a counter-electromotive force, and a voltage v_q which is a q-axis component of the counter-electromotive force;

a q-axis command current calculating unit that calculates a current command value i_q^* , which is a q-axis component of a current command value, on the basis of the voltage v_d and the voltage v_q ;

a d-axis command current calculating unit that calculates a current command value i_d^* that is a d-axis component of the current command value;

~~[[an each]]~~ a phase current command value calculating unit that calculates phase current command values of the respective phases on the basis of the current command values i_q^* and i_d^* ;

a motor current detecting circuit that detects motor phase currents of the respective phases of the motor; and

a current control unit that controls phase currents of the respective phases of the motor on the basis of the phase current command values and the detected motor phase currents;

wherein differences between the phase current command values and the detected motor phase currents are inputted to the current control unit.

21. (previously presented) A motor drive control device according to claim 20, wherein, when the motor has three phases, phase current command values I_{avref} , I_{bvref} , and I_{cvref} are calculated

according to a constant depending on the current command values I_{dref} and I_{qref} and a rotation angle of the motor.

22. (previously presented) A motor drive control device according to claim 20, wherein the current control unit includes integral control.

23. (previously presented) A motor drive control device according to any one of claims 20 to 22, wherein the motor is a brushless DC motor.

24. (previously presented) A motor drive control device according to any one of claims 20 to 22, wherein a waveform of a current or an induced voltage of the motor is a rectangular wave or a pseudo-rectangular wave.

25. (previously presented) A motor drive control device according to claim 23, wherein a waveform of a current or an induced voltage of the motor is a rectangular wave or a pseudo-rectangular wave.

26. (Cancelled)

27. (previously presented) An electric power steering apparatus, wherein the motor drive control device according to any one of claims 20 to 22 is provided.

28. (previously presented) An electric power steering apparatus, wherein the motor drive control device according to claim 23 is provided.

29. (previously presented) An electric power steering apparatus, wherein the motor drive control device according to claim 24 is provided.

30. (previously presented) An electric power steering apparatus, wherein the motor drive control device according to claim 25 is provided.

31. (Cancelled)